

Module Title:	Design Studio 3 (Industrial Design)	
Language of Instruction:	English	
Credits:	20	
NFQ Level:	7	
Module Delivered In	2 programme(s)	
Teaching & Learning Strategies:	Learners will engage through applied studio-based-learning (SBL) and user engagement, in individual/collaborative data collection, analysis and evaluation for problem/opportunity identification, ideation and problem-solving. Learning is supported through synchronous/asynchronous lecture and/or resource, facilitated micro-tasks and group discussion, tutor formative feedback, facilitated tutor-learner and peer-to-peer critique/review, e-learning and self-directed learning, and self/peer reflection on engagement/process/output toward strategy enhancement and further learning; using on-campus and/or blended and hybrid approaches.	
Module Aim:	The aim of the module is to embed data-led and evidence-based method and process within design decision-making and design practice. The module seeks to extend learner use of primary data-source, such as stakeholder engagement and co-design process, to supplement secondary data-sets, for design-led problem-solving. Learners use hypothesise and design-brief to identify and define new product opportunity. The aim is to develop applied output which focuses on artefact UX, making product use easy, intuitive and flexible, while also providing surprise and delight, and embody social/cultural meaning through detail attribute.	
Learning Outcomes		
<i>On successful completion of this module the learner should be able to:</i>		
LO1	Learner can analyse primary/secondary data of artefact for problem identification.	
LO2	Learner will utilise data to sketch concept and iteration for problem solution.	
LO3	Learner will understand academic research ethical guidelines when engaging human participants in data-collection.	
LO4	Learner can design independently and collaboratively to effect data-led decision and communicate.	
LO5	Learner can interpret research outcomes to tightly specify design intent and user experience through hypothesis and design brief.	
LO6	Learner can prepare textual and diagrammatic technical output to effectively communicate design specification and intent.	
LO7	Learner can debate philosophical approach of visual language and design-decision within social/cultural/economic contexts.	
LO8	Learner can insightfully self-critique, research method/process/decision, defend aesthetic philosophy, and attitude & behaviour.	
Pre-requisite learning		
Module Recommendations		
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>		
No recommendations listed		
Incompatible Modules		
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>		
No incompatible modules listed		
Co-requisite Modules		
6043	DSGN H2R08	Marketing for Design
6860	DSGN H3425	Prototyping & Surfaces
6861	MODL H3405	Advanced 3D Computer Modelling
Requirements		
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>		
No requirements listed		

Module Content & Assessment

Indicative Content

ACQUISITION: (listening/reading/observing)

• P12: task planning, group-working & negotiation for optimisation, design data-tools (OOBE/SWOT/persona/mood-style-benchmark boarding/user journey mapping etc.), data analysis techniques, technical documentation, introduction to ethics in design data collection involving human participants, co-design process, reflective practice writing. • P13: task planning/scoping, ethics declaration process, stakeholder engagement process, co-design process, reflective practice process • P14: project WBS and scheduling, qualitative/quantitative design research tools, data analysis, hypothesis, design brief, Maslow, narrative and metaphor, semantic symbolism, meaning in artefact.

COLLABORATION: (engaging/sharing/building)

• P12: group (1-3) artefact negotiated purchase, group artefact analysis/findings. • P13: group negotiated plan, group design ethics declaration, group scope/co-design engagement, group directions, group proposal. • P14: group project plan, group research findings, group PSS integration. • MT: inter-group/disciplinary/institutional work tasks.

DISCUSSION: (tutoring/conversing/presenting)

• P12: product purchase, group plan, product disassembly and observation, directions, + group discussions. • P13: planning, ethical requirement/considerations, partner engagement strategies, co-design framing, analysis of data, directions, + group discussion. • MT: group planning/problem interpretation/response/delivery. • P14: thematic selection, research framing, design hypothesis, problem clarification/design brief, analysis of data, form & story (within social, technological, economic, political contexts), product detailing, + group discussion. • MT: group planning/problem interpretation/response/delivery.

INVESTIGATION: (searching/studying/evaluating)

• P12: introduction and application of artefact/user/context analysis tools appropriate to industrial design; out-of-box experience (OOBE), technical data evaluation (ACCESS FM), product analysis (SWOT), product usability, user-experience (UX), user-interaction (UI), product benchmark. • P13: co-design process, ethics in data collection with human participants, reflective practice. • P14: stakeholder map, sectoral analysis (SWOT), context map, persona-framing, user journey, sectoral benchmark, style/trends-board, mood-board, mind-map, parameter scoping (features & functions), space envelop/configuration, component specification, system integration, product service system (PSS) & eco-systems, visual language, detail refinement. • MT: off-site observational field-trip.

PRACTICE: (capturing/doing/communicating)

• P12: sketching, ideating, mapping/modelling, measuring/calculating, communicating, presenting etc. • P13: mapping/modelling, communicating/presenting etc. • P14: sketching, ideating, iterating, mapping/modelling, measuring/calculating, rendering etc. • MT: observing, sketching, conceptualising, narrating, role-playing, presenting.

PRODUCTION: (designing/writing/modelling)

• P12: micro-group product assessment findings, individual directions, individual re-design proposal, individual technical data sheets/report, individual reflective practice. • P13: group ethics declaration, group directions, group proposal, group prevention, individual reflective practice. • P14: group project plan, group research findings, individual hypothesis, individual directions, individual proposal, individual design process design-book, individual report, individual defence interview. • MT: PP sketch proposals, digital presentations, visual boards

Micro-Task (24/48 hr.)

• MT1: LOOK, SEE, OBSERVE - short micro-group task to identify design/artefact/service within public realm, engage primary observation of public iteration/s, make key observation/s, and propose design intervention/improvements. • MT2: DEPAC - rapid sketching exercise, stimulated by randomly selected cards displaying actions/verbs/adjectives/emotions etc., stimulating iterative random associations; leading to non-linear conceptual idea. • MT3: WILD CARD - short design exercise to address identified class need; likely to support learning. • MT4: 24 HOUR CHALLENGE - group design challenge; normally in collaboration with partner college.

Assessment Breakdown

Assessment Breakdown	%
Continuous Assessment	100.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Case Studies	P12: Review Case-study: Assessment of learner knowledge, understanding and application of design research tools, analysis and insight of a small low/mid-priced hand-held consumer electrical/electronic artefact, based on synthesis of primary user engagement feedback with secondary data analysis; informing re-design proposal of an enhanced artefact; focusing on UX/UI, technical specification and/or functional/aesthetic (min. major/minor).	2,4,5,6,7,8	20.00	Week 7
Project	P13-Co-design: Assessment of learner engagement with external partner/s for cross-capacity input, design ethics in data-collection involving human participation, collective problem framing, data collection/analysis (primary and secondary), and co-design ideation, proposal refinement and communication, for problem-solving in mapping context/system/eco-system with a social/commercial/competitive focus.	1,3,4,5,6,7	20.00	Week 13
Project	P14-Artefact UX Design; Form & Story: Assessment of learner engagement with secondary qualitative and quantitative data, analysis and research, to hypothesise and clarify design action focus through written design brief for new product opportunity; from thematic/sectoral areas. Application of design approach, method and tools to conceptualise, iterate, develop, refine, specify and communicate outcome; focused on development of appropriate visual vocabulary in form and story (visual narrative metaphor); reflecting emerging trends in product family, service system, eco-system, detail and/or user experience.	1,4,5,6,7	40.00	Week 28
Other	Learner awareness, engagement and development of Graduate Attributes is captured on a five Likert Scale range; including module engagement, collaboration, contribution, professionalism, attitude & behaviours etc..		10.00	Ongoing
Reflective Journal	Learner prepares individual reflection on engagement, collaboration and performance in development of knowledge, skill and competency in design research, process and practice, and state design philosophy, and highlight future learning need/s.	4,5,7,8	5.00	Sem 1 End
Oral Examination/Interview	Learner defends engagement, acquisition, discussion/participation/collaboration, investigation, practice, production, synthesis of learning, and attainment of graduate attributes from across programatic modular content.	1,2,3,4,5,6,7,8	5.00	Sem 2 End
No Project				
No Practical				
No End of Module Formal Examination				

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Studio Based Learning	Every Week	11.00
Independent Learning	Every Week	8.00
Total Hours		19.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_DHPDI_B	Bachelor of Arts (Honours) in Product Design Innovation	6	Mandatory
CW_DHIDE_D	Bachelor of Arts in Design	6	Mandatory